

# APPRAISAL BULLETIN

PUBLISHED IN THE INTERESTS OF REAL ESTATE ANALYST SUBSCRIBERS BY

ROY WENZLICK & CO.
Real Estate Economists, Appraisers and Counselors

AUGUST 31 1950

Volume XIX

Copyright 1950 by ROY WENZLICK & CO. Soint Louis

Number 37

# RESIDENTIAL CONSTRUCTION COSTS



SIX-ROOM FRAME HOUSE Content: 24, 288 cubic feet 1, 650 square feet

DESCRIPTIVE SPECIFICATIONS
STANDARD FRAME HOUSE

GENERAL CONDITIONS

Materials, Labor, Appliances. Unless of therwise specified herein, the contractor shall provide and pay for all materials, labor, water, tools, equipment, permits, light and power necessary for the completion of the Wenzlick standard six-room frame house. Unless otherwise specified, all materials shall be sound, new and of good quality and all work shall be done in a skillful and workmanlike manner.

PREPARATION OF SITE AND EXCAVATION The contractor shall clear the site of all trees, brush, etc., which come within the area of the proposed building. He shall carefully remove and stack on the plot the top soil for making the lawn.

Excavation shall be of sufficient area and depth to accommodate the building indicated; foundation walls shall be carefully backfilled. Any surplus material not required to grade the plot as designated by plans shall be removed from the premises. Any shortage of materials shall be furnished by the contractor.

Rock excavation is not included in this contract. The contractor will be paid an additional price per cubic foot for rock removal as specified in his bid.

Pumping of other than surface water is not included in the contract price. If spring or other sub-surface water is encountered, the contractor will be paid an additional price per day for keeping the excavation free at the price quoted in his bid or agreed upon between the contractor and the owner.

CONCRETE FOOTINGS AND FOUNDATIONS Footings and foundation walls shall be installed to dimensions indicated on the plans. The mixture shall be one (1) part Portland Cement, three (3) parts clean sharp sand, five (5) parts broken stone,

trap-rock, gravel or other suitable clean coarse aggregate, graded in size to pass

through a 2-inch screen, adequately mixed with a sufficient amount of clean water in a mechanical batch mixer, placed in the forms within one-half hour thereafter. Substantial and tight forms shall be built on both inner and outer surface foundations of the walls. No part of excavated material shall be used as a form.

## FINISHED CEMENT WORK

The under-course shall be poured over a well tamped 3-inch cinder bed and shall be composed of concrete as specified above, laid level to a thickness of not

less than 2-1/2 inches. A finish coat of one (1) part Portland Cement and three (3) parts clean sharp sand shall be applied to a thickness of not less than one (1) inch on top of all concrete under-courses, finished smooth and leveled under a steel trowel. Concrete fill shall be provided for tile floors in the bathroom and lavatory. Front and rear entrance slabs to be 4-inch concrete mixed and finished as specified above.

## BRICKWORK AND MASONRY ITEMS

The contractor shall provide all brick work, as specified on the plans, comprising a chimney, as indicated, flues lined with terracotta of proper dimensions, fireplace opening lined with fire brick,

equipped with cast-iron throat, and damper and steel smoke chamber. Cast-iron ash dump and clean-out doors provided as indicated.

Common brick shall be laid in running bond with each fifth course a header course, and laid in cement mortar composed of one (1) part bulk lime, three (3) parts clean sharp sand to which may be added 10 per cent hydrated lime. Chimney exposed above the roof shall be laid with face brick. A chimney cap shall be provided as indicated on plans. Mantel shall be of venetian red mantel brick.

# LATHING, PLASTERING AND STUCCO

Exterior gable ends (see plans) shall be stuccoed with two-coat work, stucco placed on heavy-gauge expanded metal lath, applied securely to the sheathing and nailed every 12 inches. Both coats

of stucco shall be one (1) part Portland Cement and two (2) parts clean sand. The finishing coat shall be textured as directed.

Where tiled walls occur in the bathroom and lavatory, the contractor shall cover with metal lath and cement mortar scratch.

Contractor shall provide for three-coat plastering over rock lath (or expanded metal lath) secured to studs (or joints) at each intersection with blued lath nail, corner beads provided for all exterior angles. The scratch coat shall be one (1) part lime putty to two (2) parts sand, with proper proportions of fiber and sand added. The brown coat shall be one (1) part lime putty to three (3) parts sand. The finished coat shall be one (1) part dry gauged plaster to two (2) parts dry hydrated lime. First grade workmanship is required in the application of each plaster coat. No cornice or other ornamental plaster work is contemplated under this contract.

# INSULATION

Four inches of loose insulating material, rock wool or equal, shall cover entire area of second floor ceiling. All exterior walls shall have 4 inch-

es of insulation material. If quilt or bat type is used, it shall be not less than 4

inches thick. Loose fill material, if used, shall be supported vertically every 2 feet and sections so formed between studs packed with sufficient material to insure installation in accordance with manufacturer's instructions. The contractor shall submit for approval both type and trade name of proposed material.

TILING

This specification provides for tiling bathroom and lavatory. Floors shall be prepared by the carpenter and mason, and walls by plaster contractor

as specified above. The tile setter shall furnish and install four and a quarter by four and a quarter glazed commercial-grade wall tile with approved caps, cove bases, angles, finials, etc., color to be selected by owner. Tile installed to a height of 3 feet 6 inches and to ceiling around bath tub. Bathroom and lavatory floors shall be 1-inch or 2-inch hexagonal white ceramic tile.

The contractor shall furnish all setting materials and on completion leave the entire work properly grouted and cleaned.

ROUGH CARPENTRY AND FRAMING MATERIAL Rough carpentry and framing material shall be the best grade provided in local practice. It may be yellow pine, white pine, fir or hemlock. All material shall be of sizes indicated, with allowance

for milling.

Floor Joists 2 in. x 10 in. - spaced 16 in. c to c Ceiling Joists 2 in. x 6 in. - spaced 16 in. c to c Roof Rafters 2 in. x 6 in. - spaced 16 in. c to c Studding in exterior walls and interior partitions 2 in. x 4 in. - spaced 16 in. c to c

One line of cross bridging shall be provided for each floor span exceeding 10 feet. Framing shall be in accordance with best practice, using box method for constructing the first floor and platform method above. The entire structure shall be braced and trussed where necessary and securely nailed as required by best practice.

**UNDERFLOORING** AND SHEATHING

Sheathing on roof and exterior walls and all subflooring shall be provided as indicated. Material shall be No. 2, dressed and not over 6 inches wide, laid diagonally for floors and exterior walls and each intersection well secured by two 6d nails.

SIDING AND ROOFING

Exterior walls shall be three quarter by ten-inch redwood siding, cut, fitted and placed with 8 inches exposed to the weather. Roof shall be asphalt 3in-1 shingles weighing not less than 210 lbs. per square.

PAPER AND FELT

Before placing siding, all exterior sheathing surface shall be covered with one course of approved waterproof building felt, weighing no less than 15 lbs. per square. This material shall be well nailed and lapped not less than 2

inches at all edges, applied in double thickness around all windows and door openings.

Before placing asphalt shingles, the entire roof sheathing shall be covered with waterproof roofing felt weighing not less than 15 lbs. per square. This roof felt shall be well nailed and lapped not less than 2 inches at all edges.

Before placing the finished flooring, all sub-flooring shall be covered with one course of building paper.

FLASHING - SHEET METAL WORK

Provide and install 16-ounce copper flashing for valleys and angles, chimney counter and step flashed. Provide gutters and downspouts (see plans) of 16 ounces copper with necessary fittings, all securely supported by approved hangers and straps.

MILLWORK - WINDOW FRAMES AND SASH

Stock window frames and sash shall be provided of the sizes shown on the plans. These shall be double-hung type as indicated and sash shall be glazed with single-strength clear glass. The sash

shall be 1-3/8 inches thick, check-rail type. Exterior door frames shall be 2inch clear pine rabbeted to receive 1-3/4-inch stock doors.

MILLWORK - INTERIOR

All stock trim necessary to complete the various parts of the work indicated shall be provided. All casings, base, trim, stools and moulding shall be

of yellow pine of the best quality and of approved design as carried in local stock. Exterior doors shall be clear pine 1-3/4 inches thick of the size shown on the plans as selected from local catalog stock. Interior doors shall be of clear pine, six panel colonial design 1-3/8 inches thick of the size indicated on the plans selected from local catalog stock.

FINISHED FLOORS

Finished floors shall be of clear select red oak 2-1/4 inches x 13/16 inches, to be placed over all floor areas on the first and second floors, except

the bath and lavatory. Flooring shall be laid tight and even and nailed every 16 inches. All oak flooring shall be scraped or sanded and completed ready for the painters.

BUILT-IN CABINETS

Built-in kitchen cabinets shall be provided as indicated on the plans.

BASEMENT STAIRS

FINISHED STAIRS

Basement stairs shall be finished and erected as indicated on the plans. These stairways including stringers, treads and rail shall be of No. 1 yellow

pine.

Stairs from first to second floor shall be furnished and erected as indicated on the plans properly supported on 2-inch x 8-inch carriages and blocking.

Risers shall be of pine B or better, 3/4 x 7½ inches x 3 feet 6 inches; treads of red

or white oak,  $11\frac{1}{2}$  inches x 1-1/8 inches x 3 feet 6 inches. The rail shall be 2-1/4 inches x 2-3/8 inches. Rail, volute and easing shall be of birch or oak. Balusters with tapered turned necking shall be of birch or pine. The stair-railing shall be of colonial design, all as selected from local catalog stock.

#### PAINTING

Immediately upon completion of all exterior and interior woodwork the painter shall apply a priming coat consisting of white lead, pure linseed oil

and turpentine in the proportions considered best in local practice. Upon completion of the priming coat, all nail holes and other imperfections in the work shall be stopped and filled with white lead putty. Before priming, knots and shakes shall be stopped with one coat of pure orange shellac. Second and third coats shall be mixed and applied in the color selected. Painters may mix at the job all white lead and oil paint in the proportions customary in the locality, using paste, white lead, pure linseed oil, turpentine and dryer, mixed in such proportions as to weigh not less than 15 lbs. per gallon. Painter may use the best qualities of approved ready-mixed paints. Each can must bear the formula of its contents. Materials shall be used direct from this original package and in accordance with the manufacturer's directions. (This contract does not contemplate the painting or decoration of plastered walls and ceilings.) Painter shall oil-stain oak floors in shade selected and fill with an approved paste filler. Floors shall then be finished with three coats of white shellac.

#### PLUMBING

This specification contemplates a complete plumbing, drainage and water-supply system for one bathroom, one kitchen and one lavatory.

Sewer Line, Vents and Drainage. House sewer line of four inches shall be carried to a point 50 feet beyond foundation walls. Septic tank, drainage field, a connection to public sewer or municipal permits as may be required by local custom are not included. Vent and drainage system shall be installed and tested in accordance with best local practice, municipal code, or requirements of American Society of Sanitary Engineers. All joints shall be filled with oakum and poured lead and well calked. Two-inch vent and waste lines shall be of genuine galvanized wrought iron. Four-inch vitrified tile pipe shall be continued beyond the foundation walls for 50 feet and the joints securely set with cement mortar. Plumber shall excavate and backfill all pipe trenches.

Water Supply. A pipe shall be continued 50 feet beyond the foundation walls in separate trench. This shall be laid using 3/4-inch copper water tubing with sweat-joint fittings. One-half inch copper tubing with sweat-joint pipe and fitting shall be installed for hot and cold water supply and connected with all plumbing fixtures and boiler. (Water closets and boiler shall be provided with cold-water supply only.) All pipe and fitting shall be installed in accordance with manufacturers' instructions.

<u>Fixtures.</u> There shall be furnished and installed to the rough connections here provided fixtures of quality equal to those specified in the following list: (The following list covers items manufactured by the Independent Plumbing and Heating Company. Contractor is permitted to substitute any equal combination.)

60- inch Queen Sink #457
Two Knight Pedestal Lavatories 20 inches x 24 inches over all #224
Two Colonial Vitreous China toilets with white ivoryette seat #344
One 60-inch bath tub #123

Hot Water Supply. A domestic heater is not provided under these specifications. It will be provided under separate order on selection by the owner and cost of connecting and placing the device in operation shall be included under this original plumbing contract.

Alternates. If local building codes and practice do not permit the use of copper tubing and sweat-joint fittings for water supply, the contractor shall furnish genuine wrought-iron galvanized pipe in place thereof. However, where substitution is made, pipe one size larger than specified shall be provided.

The purpose of this specification is to describe complete installation of the 1-pipe vacuum heating plant. All pipes shall be genuine wrought iron, installed in sizes, pitch and direction as indicated on the heating plans and instructions provided by the manufacturer furnishing the vacuum system accessories.

Radiation. Radiation furnished by this contract consists of a total of 260 square feet. The boiler shall be of capacity and design equal to Red Flash No. 1S5, American Radiator Company #W-2204, complete including insulating jackets, standard fittings and tools.

The contractor shall guarantee the heating plant to heat the entire first and second floors of the house to 70 degrees Fahrenheit when the outside temperature is at Zero Fahrenheit and wind velocity is not in excess of 30 miles per hour, with not less than a 6-hour firing period. This should be accomplished with not more than a 2-pound gauge pressure at the boiler, or with the vacuum at the height specified by the manufacturer of the vacuum system accessories. The plant shall be tested as required and left complete.

Covering - Pipe and Boiler Jacket. The boiler shall have standard insulated jacket as regularly furnished by manufacturer, lined with not less than 1-inch thickness of asbestos sheet insulation, and 4-inch asbestos fill shall be placed on floor within jacket. All exposed supply pipes in the cellar and within building walls shall be covered with approved 2-inch air-cel asbestos covering. All exposed covering shall be banded at the joints with brass strapping.

<u>Painting.</u> All exposed pipes in the basement as well as any exposed unfinished cast-iron parts of the boiler shall receive two coats of approved smoke-stack black. All radiators, and any exposed pipes above the first floor level shall be thoroughly cleaned and receive two coats of approved heat-resisting radiator paint in color selected.

ELECTRIC WIRING

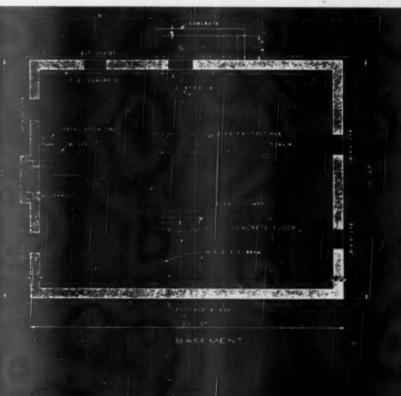
ELECTRIC WIRING

Complete electrical installation. All material shall be of standard make and of quality and installed as required by the National Board of Fire Underwriters. All outlets shall

terminate in approved metal boxes. Switches shall be of toggle type. All outlets other than for lighting fixtures and switches shall be equipped with standard duplex connections. Wiring to outlets shall be of approved-size BX cable of sufficient size to carry the circuit load.

Each circuit shall be switched and fused and extended to a central panel board. This contractor shall terminate all circuits at an appropriate meter and fuse board.

Connection from meter panel to public service lines is not included in this contract, nor are electrical fixtures and appliances provided.



Costs are grouped into lear classifications of maintrial, her of labor and three of crost-hand.
A faction breakders of these groups is given in detail below. Colomos of the habit are manipered, and a brief secription of the lisms included to each is given in the paragraphs habits. Paragraphs are numbered to correspond with the colomos described. Building malagraph coefs are indicated by the letter M. Courresponding table; literal

No labor issues are shown in Column 10, Building Mardwarn, so they have already been for classed in Column 5, Millererh.

Occup A.

(I) Missoury; Cemest, sand, gravel, quick lime, hydrated lime, hard well planter, inco and common brick, first brick, fine blants.
(2) Tile Work: 4-1/4 s 4-1/4 wall tile, ceramic finer tile, cap and home. Argus B. (3) Unitatabed Lamber: Columns, beams, floor and celling joints, inserfor and exterior

stade, refers, bracileg, etc. (a) Fusionel Lumber: Seb-flooring, sheetbing, flasshed floors, neglesk shingle routing, routing felt, shutters, etc.

Organ C. (6) Beating: Beating plant, heating matribution, redistion,

(5) Possibling: Buil plans and connections, shick, waier play and remardisms, limit salims and latherone limitaries, water heater heater and lamit to be formulated by others.

ADSSER, Barton Color, Lova (present) gettors, devangentes, flandning, (B) Restrictal Work: Makes sevite), EE cabin, sevitità bosses, rendigiacine, transferenza, enc. No fizziores incloided, communa and wire eatis, bolts, damper, suit deers, finish hard-(13) Raids and Reviscore. Communa and wire eatis, bolts, damper, suit deers, finish hard-

(11) Painting: White load, immood oil, turpenties, varsish, shelber, filler, (12) Miscrolianeous: Lafe, corner beed, toseleties.

TOSA Miscrolianeous: Lafe, corner beed, toseleties.

(10) Total overhead, profit and ember costs. This stem includes everhead and profit of sobcentractors is plantering, metal verot, heating, planthing, electrical verb and tills verb; generally be to the profit of the solution of the profit of the second profit of the solution of the second of the medershall, and so the second of the seco

TOTAL COMPTRUCTION COST

	1			2.2	12	111	25:		222	22	253	23	22	23	
	8	18. W	111	18.9	22	iii	14:	is a	**	17.8	18:	nx	33	111	iii
TOTAL		# N	i	8	11	151	60187		163	4803 4178	100	11.0	816	EE.	E 68
<b>u</b>	01.00		88	1	1001	115			111	32	111	101	11	1147	100
Ī	Total	1		1881	1257	35.0	1925	2110	221		1107	1113	11	1661	1001
	, T	1		2002	2812	Ħ	85	III	1000	200	3080	H	58	1	EH
	8		12:		==	222	22	335	==:	122	22	:22	22	==	122
	=	121	13:	22	2 = 2	222	22	223	22:		18	AHA	88	33	8 8
		,81	151	55	22	338	**	111	223	:::	33	225	28	23	22
	(11)	*=:	22:	==	22	225	22	222	22	225	22	122	52	22	22
0	10	21	13	8 8	110	216	12	221	==:	223	12	221	22	::	122
GROUP					35	225	18	252	38	223	99	222	22	53	: 2 2
	8	= 2	22	22	21	***	22	222	22	222	22	122	22	2:	122
	(6)	7 2 2	22	22	91	228	22	222	22	222	22	222	22	0.0	11
		× E		-	22	222	52	225	2.5	<b>F23</b>	22	281	53	2:	322
	gen.	\$110			124	333	10	25.8	151	100	9 6	131	133	133	121
U	E	M ES	12	22	23	ESS	31	HHR	22	HH	272	100	EE	H	123
SROUP		3138	22	12	23	IN	HE	222	11	112	112	1000	38	9	338
9	8	N S	182	2 3	88	122	274	211	370	236	2 2	256	18	2	111
HORES		711	118	88	137	122	88	RER	111	588	128	180	121	101	
_	(8)	N 124 1			31	293	200	358	21	125	RE	\$55	39	1	111
1		- 1	123	22	245	188	946	MAR	11	222	133	102	51	18	15
GROUP	(*)	×			3	1981	25	358	25	125	808	233	200	604	333
	-	,,2	22	\$ 8	8	1929	18	2210		222	22	335	11	148	223
	(8)	N S LOCK	1 E	213	E	1663	1	222	83	848	##	222	22	1	223
		72				1222	118	333	22	555	51	555	55	F	FF
4		N. H	22	12	2:		1 1 1		208	100	92	1111	103	103	103
GROUP	-	78	22	28	414	1881	58	635	22	327	100	223	1	878	223
0	3	N 1881	23	13	3	121	38	133	11	<b>##</b>	15	188	11		15:
Minn		Year	100	1016	1010	85	1 88	1028	1808	1930	1933	1938	1	1940	0 0 0
														-	

2250

	4.00 98	2022	22.53	1828	8285	82.00	2528	2882	1380	378333	B. II
	26.9 28.3 30.0	30.3 30.5 30.6 29.6	29.4 29.6 30.1	29.9 30.6 31.2	21.0	4 6 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	51.0 80.4 81.0	1185	9.8.0	97.0	1.0
	6529 6512 6660 7289	7812 7412 7440 7159	7149 7148 7046 7302	8127 8127 9127 9887	METT ON SECON	E 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		13107 13829 14046	14096 14031 13820 13848	92500	14391
	1299 1299 1350 1447	1451 1464 1469 1403	1402 1402 1388 1417	1416	1532	2888	2005	8828	2502	2796 2401 2781 2808 2807 2807	1
	1893 1932 2042 2209	2236 2236 2260 2047	2047 2047 1964 1964	M M M M M M M M M M M M M M M M M M M	2167 2310 3081	3316 3345 3451 3670	4037 4037 4033 4083	1136	3333	88888	1
	3350 3281 3468 3633	3633 3712 3713 3709	3700 3694 3821	3895 4025 4040 4080	\$ \$ \$ \$ 9 8 5 5 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	5535	9033 9123 9786 9011	6833 6630 6620	8 8 8 8 8 2 5 5 1	IIIIII	11.00
	2222	1188	5555	25.55	1188	8888	3333	3331	HEEE	EFFEE	I
	203 202 220 220	229	229 229 229 229 239	2222	****	****	317	3555	32 0 E	333333	430
	127	141	126	126	2835	2222	2222	1133	2728	HEREE	1
	88888	38 33	3888	****	****	8827	2253	2555	2222		8
	922 89	2222	2222	2222	eses	2522	5885	8888	2222	22222	8
	98 83 4	8 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	655 65	2222	2320	1996	5555	5588	8888	888888	143
	2222	\$888	2232	2222	2222	3335	EEEE	tttt	EFFF	======	=
	2000	0000	50000	8888	2222	2222	2222	2222	2223	333333	\$
U	1888	2212	2222	2222	2222	2222	102	145 117 122 130	130	22222	130
	149	187 188 188	148	140	174	2225	2222	2222	350 375 375 375	22222	12
	206 274 274 289	3114	317	517 517 517 517	317	88833	\$ 5 8 5 \$ 5 8 5	657 517 547	3H35	355535	5
	180	200 200 180	18000	9999	2002	2222	HHH	2222	3333	33333	\$
	242 250 250 262	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	2222	272	EEEE	2822	SEES		875 871 871	22222	172
	210 241 262 262	263 263 264 236	238	2222	25.55	2222	5555	9333	2222	222222	338
	615 604 606 657	682 682 682 682	682 682 682 682	0000	2222	000tr	0.00 1030 1030	10001	9999		3
	223 223 223 256 278	280 280 282 252	252 252 227 227	2227	HHH	3555	2222	517 517 552 582	2883	33888	E
	717	783 781 790	790 790 898	\$ 555 g	****	2 2 2 2 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0		1881	1414	115111	1545
	167 202 208 208	212	190 174 174	174	2012	2000	2222	374 974 402 403	3233	22222	\$
	468 439 525 516	509 519 512 530	532 532 532 628	8888	1118	8888	85138	2222	2225	EEEE11	830
	9888	2222	2222	2222	2222	2222	5555	5565	FEEE	EEEEEE	=
	145 150 150	175	151	175	EEEE	211 211 211	****		2222	222228	9
	630 629 640 667	685 685 685 957	657 658 638	3382	2553	10051	2222	9989	0001180	333355	8
	473 498 500	808 808 808 808	505 505 505 513	513 513 513 822	3331	3135	5338	5185	1555	221122	1153
	MEN N	1942	PA3 PA3 PA3	1111	2222	1111	IIII	1111	1111	989999	1880
	Agro	Agro		4410	2410	4410	4410	4410	4820	25252	n n
_											



FIVE-ROOM BRICK VENEER HOUSE Content: 24,910 cubic feet 1,165 square feet

#### DESCRIPTIVE SPECIFICATIONS STANDARD BRICK VENEER BUNGALOW

GENERAL CONDITIONS - Same as 6-room frame house.

PREPARATION OF SITE AND EXCAVATION - Same as 6-room frame house.

CONCRETE FOOTINGS AND FOUNDATIONS - Same as 6-room frame house, with the following additions: Foundation walls to be 12-inch poured concrete.

FINISHED CEMENT WORK - Same as 6-room frame house.

BRICKWORK AND MASONRY ITEMS - The contractor shall provide all brickwork as specified in plans, comprising exterior veneer, a chimney, flues lined with terra cotta of proper dimensions, fireplace opening lined with firebrick equipped with cast iron throat and damper and steel smoke chamber. Cast iron ash dump and cleanout doors provided as indicated. Mantel is to be of venetian red mantel brick. Four-inch brick veneer is to be laid with weathered joints and with galvanized clips every seventh course. There is to be a one-inch air space between the brick veneer and the wood sheathing.

LATHING AND PLASTERING - Same as for 6-room frame house, except that there is no stucco.

INSULATION - Same as 6-room frame house (1st floor instead of 2nd floor ceiling).

TILING - This specification provides for tiling bathroom and kitchen. Floors shall be prepared by the carpenter and mason, and walls by plaster contractor as specified above. The tile setter shall furnish and install four and a quarter by four and a quarter glazed commercial-grade wall tile with approved caps, cove bases, angles, finials, etc., color to be selected by owner. Tile installed to a height of 3 feet 6 inches, to ceiling around tub in bathroom and to a height of 3 feet 6 inches in the kitchen.

ROUGH CARPENTRY AND FRAMING MATERIAL - Same as 6-room frame house.

PAPER AND FELT - Before laying veneer wall, all exterior sheathing surface shall be covered with one course of approved waterproof building felt, weighing no less than 15 lbs. per square. This material shall be well nailed and lapped not less than 2 inches at all edges, applied in double thickness around all windows and door openings.

Before laying the finished floor there shall be one thickness of 15 lb. waterproof roofing felt placed over the sub-flooring. This material shall be well nailed and lapped not less than 2 inches at all edges.

Before placing the finished flooring, all sub-flooring shall be covered with one course of building paper.

FLASHING AND SHEET METAL WORK - Same as 6-room frame house.

MILLWORK - WINDOW FRAMES AND SASH - Same as 6-room frame house.

MILLWORK - INTERIOR - Same as 6-room frame house.

FINISHED FLOORS

Finished floors shall be of clear select red oak 2-1/4 inches x 13/16 anches, to be placed over all floor areas except the bath. Flooring shall be

laid tight and even and nailed every 16 inches. All oak flooring shall be scraped or sanded and completed ready for the painters.

BUILT-IN KITCHEN CABINETS - Same as 6-room frame house.

BASEMENT STAIRS - Same as 6-room frame house.

FINISHED STAIRS - Same as 6-room frame house except no stair rail is required.

PAINTING - Same as 6-room frame house.

PLUMBING - This specification contemplates a complete plumbing, drainage and water-supply system for one bathroom and one kitchen.

Sewer Line, Vents and Drainage - Same as 6-room frame house.

Water Supply. A pipe shall be continued 50 feet beyond the foundation walls in separate trench. This shall be laid using 3/4-inch copper water tubing with sweat-joint fittings. One-half inch copper tubing with sweat-joint pipe and fitting shall be installed for hot and cold water supply and connected with all plumbing fixtures and boiler. (Water closet shall be provided with cold-water supply only.) All pipe and fitting shall be installed in accordance with manufacturers' instructions.

<u>Fixtures.</u> There shall be furnished and installed to the rough connections here provided fixtures of quality equal to those specified in the following list: (The following list covers items manufactured by the Independent Plumbing and Heating Company. Contractor is permitted to substitute any equal combination.)

(cont. on page 354)

# A FIVE ROOM BRICK HOUSE BUILT IN ST. LOUIS BUILDING COSTS OF

Comits are grouped into four classifications of material, four of labor and three of overhead. A further treatakens of these groups is given in default below. Columns of the stable are numbered, and a brief description of the Thems included in each is given in the puringraphs below. Paragraphs are numbered to correspond with the columns described. Building material conta are indicated by the letter <u>Mi.</u> corresponding <u>labor</u> thems, by the letter the labor trensponding labor thems, by the letter below to the letter the labor trens as the shown is Columns to <u>Millenge.</u>

Group A (1) Manonay. Cement, sand, gravel, quick lime, hydrated lime, hard wall planter, face and common brick, fire brick, flue Haing.

(2) Tile Work: 4-1/4 x 4-1/4 wall tile, cerxmic floor tile, cap and base.

ALGER B (3) Unfinished Lumber: Columns, beams, floor and ceiling juists, interior and exterior

studs, rafters, bracing, etc.

(4) Finished Lumber: Sub-flooring, sheathing, finished floors, asphalt shingle roofing, roofing felt, shatters, etc.
(5) Millwork: Windows, doors, trim, kitchen cabinet, stairs.

Group C. (6) Heating: Heating plant, beating distribution, radiation.

(7) Plumbing, Soil pipes and connections, stack, water pipe and connections, and bathroom flutures, water heater and tank to be furnished by others.

Proug D. (2) Sheet Metal: Gair iron (present) gulters, downspoots, flashing. (9) "Esetrical Work: Mais switch, EX cable, switch boxes, receptacion,

etc. No intarves included.

(10) Neals and Mardware: Common and wire nails, builts, damper, and doors, finish hardware ware, etc.

(11) Paining: White lead, liaseed oil, inspentine, varnish shellac, filler.

(11) Miscellaneous: Laft, corner bead, inscidion.

(12) Miscellaneous: Lath, corra Yotal Material and Labor Costs Grosse R.

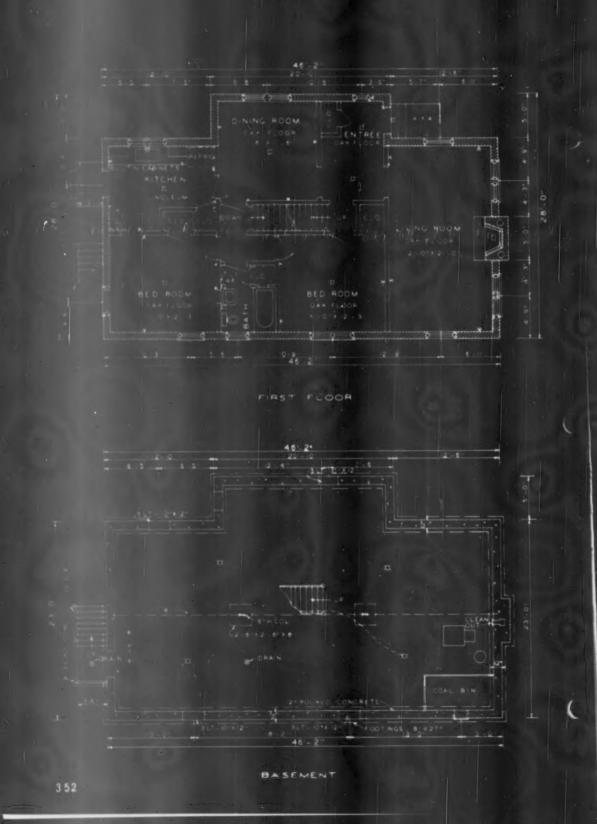
Communication of the control of the and unemployment tax (Federal and State). Stability and employees comp surance, fire and tornado insurance, and completion bond

TOTAL CONSTRUCTION COST

	300 anna	18882	44444	28858	0.000	4.00	4.73 8.73 9.07	
	O. B. C. B. 15.00 P. 15.00 P. 15.00 P. 17.00 P.	E B B B B B	NANAX NANAX	200 200 17.3	21.0.0	1.11	22.22	
TOTAL	3442 3443 3830 4390	2 1 1 2 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	######################################	5737 5770 5072 4299 4348	4317 4803 5028 5386 5386	5256 5442	5460 5500 5524 5604	
164	(13) 8 019 8115 637 704 704	908 1068 1008 1008	1234 1234 1230 1204 1163	1063 1063 930 780 785	780 873 1046 1139	1030	1073 1086 1103 1156	
	4 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	8 1 8 1 8 1 8 1 8 1 8 1 8 1 8 1 8 1 8 1	*****	1909 1407 1104 1157	1157	1511	1715	
	* EFERT	2005 2005 3005 3005 3005 3000	3034 3070 3009 2839	FEMAN	2630 2630 2630 2716 2923	2715	2699 2699 2706 2986	
10000	=====================================	22828	22222	22488	88488	57	622	
	RRRRRR	35883	22222	1522	1021	168	####	
	_======	21238	8888	22223	22212	28	EEEE	
0	S * * * * * * * * * * * * * * * * * * *	-====	22222	50052	22222	22	81 44	
GROUP D	Sastan Sastan	RIGES	88553	88582	23222	22	2888	
9	-122223	32212	25533	22022	45022	33	4444	
	******	22222	22225	22222	82228	28	35	
	277722	=====	27222	****	22228	22	2222	
	*****	85522	52222	ESE 28	22221	404	30000	
rida	72233	P 00 00 00 00 00 00 00 00 00 00 00 00 00	25238	88222	A7 19 11 10 11 11 11 11 11 11 11 11 11 11 11	108	106	
JP C	E MARKET	H 4 8 8 8 4	22222	2376 2376 282 282	262 303 315 348	319	2553	
GROUP	-22222	22228	82223	10 22 22 23	22222	\$\$	2222	
0	8122 1135 1239 1239 206	52333	18225	168	162 156 156 156 156 156 156 156 156 156 156	88	2222	
	75555	001101	101 101 208 100 100	156 118 95 95	95 1118 136 153	128	5555	
	8 272 8 272 255 285 285 312	35553	ACAKE.	221 243 286 221 243 221	279 388 411 388 453	403	5553	
9	75558	8 0 1 1 0 1	28081	148 110 88 88	88 1110 1127 149	125	2225	
GROUP	8 242 202 203 275	13325	428 428 336 336 336	380 370 326 326	320 427 365 370 428	343	1350	
	7 8 8 6 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	24E33	233	179 179 131 105	201108	155	2227	
	200 8 200 8 200 3 300 300	83858	1911	425 346 346 346 346	452 462 380 415	310	400 410 803 803	
-	22220		135	122 123	22111	25	100	
A 9	* * * * * * * * * * * * * * * * * * *	*****	201 201 201 201 201 201 201 201 201 201	149	988	22	8882	
GROUP	755588	PERFE	18444	127 727 570 570	870 727 784	80	2622	
0	*******	3225	783 744 695	8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	825 825 825 800	909	8888	
200	Year 1913 1916 1916 1916	1919	1923	1928	1933 1934 1936 1936	1938	Ja 1940 Ap 1940 D 1940	•

2222 22 2222 2222 2222 2222

0 0 0 0 0 0 0 0 0 0 0 0 0	8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	8838	5882	****		*888	10.43	1100 1100 1100 1100 1100 1100 1100 110	888888	111.48
23.6.0	227.7.2	26.6	27.0	****	38.0		*****	82.2 81.1 81.1 81.1		87.0
6196 6071 6449 6829	6774 6948 6877 6822	0621 0617 0480 0634	6727 6793 8614 7012	8424	88738 8873 9137 9400	11111 111111 1111111111111111111111111	12086	12013 12077 12730 12730	*******	13345
1250 1196 1256 1342	1346 1349 1355 1200	1299 1298 1273 1282	1300	555	1745	2180 2180 2180 2223	2320 2430 2540	25625 26625 26635	222 X 11 8 10 00 00 00 00 00 00 00 00 00 00 00 00	3400
1978 1981 2089 2301	25528 25528 2567 2164	2164 2051 2014	2014 2014 2014	2230 2230 2300 3130	8535	3810	6013 6428 8428 8428	455 455 455 455 455 455 455 455 455 455	555599	=
2004 3104 3186	3106	3158 3156 3156 3336	3413 3808 3808	-	36236	55 55 55 55 55 55 55 55 55 55 55 55 55	57428	9097 9784 8613		6110
2222	8882	2222	2222	3333	2222	2222	2222	BEEE	*****	
153 153 165 170	171	101	2223		-	2225	SEEE	EERR	*****	
102	1114	102	2222	2211	1111	****	200 200	2222	*****	238
55 55 56 56	2222	2222	2222	2222	2222	2222	2222	5588	888888	8
227.88	2222	2222	****	****	****	2888	2222	2222	******	1
86088	2222	2283	2222	2888	5222	2222	2222	8888	888888	111
22 22 23	9222	111111111111111111111111111111111111111	2222	====	2222	100	5333	5555	EEEEEE	75
2222	36 88	2222	XXXX	****	2222	2222	***	2222	*****	8
800	23 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	2222	2222	2222	2222	5558	2828	2222	******	2
132	144	124	2000	2222	2222	****	2222	865 58	333333	311
217	235 235 235	236 236 236 236	8888	2222	250 250 250 250 250 250 250 250 250 250	35223	402 416 431 468	3555	820228	430
8888	8888	8888	2222	2222	1111	IIII	2225	2222	222222	140
218	219	222	5555	8888	2222	308	353 362 376 376	376	*****	-
162	178	163	3333	2525	5588	313	318	242	22222	32
488 485 507	507 525 525 525 525	525 525 525 525 525	2222	807 709 709	7000	3553	900 900 1025	1205	#00000 #00000	1230
147	185	167	181	2252	378 301 301	310	326 326 355 355	2222	****	20
450 445 439	451 451 457	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	2000	5555	8885	1178 1280 1089 1087	1000	1101 1008 1004 1017	1017 1017 1028 1062 1002	1077
176 202 219	224 224 201	201	****	2228	2552	378 378 378	301	2444	555555	25
\$03 4.80 580 608	542 542 539	539 539 626 626	5888	2222	3553	1024 835 835	928 936 937 948	810 817 817	550000	ā
108	108	108	8888	8883	2222	8888	2222	200	1111111	217
126	138	1110	2222	3333	8888	2000	208 208 208 208 208 208 208 208 208 208	206 195 195	201111111111111111111111111111111111111	201
986 974 1012 1085	1113	1051 1051 981 981	981	1117	1000	1801	1981 1981 2193	2193 2202 2225 2225	2222	2318
5000	6400	640	2228	8663	2222	908 948 973 1013	1042 1051 1079 1008	1113	111111111111111111111111111111111111111	1181
Ap 1941 71 1941 0 1941	Ap 1942	Ap 1943	Ap 1944 Ji 1944 O 1944	Ap 1945 11 1945 0 1945	Ap 1946 71 1946 0 1946					31 1990





FRONT ELEVATION



SIDE ELEVATION

(cont. from page 349)

60-inch Queen sink #457

One Knight Pedestal Lavatory 20 inches x 24 inches over all #224

One Colonial Vitreous China toilet with white ivoryette seat #344

One 60-inch bath tub #123

Hot Water Supply - Same as 6-room frame house.

Alternates - Same as 6-room frame house.

HEATING PLANT - The contractor shall install one forced circulation combination furnace (24 inches) and blower with automatic humidifier complete with necessary leads and returns made of 26-gauge galvanized steel. The contractor shall guarantee the heating plant to heat the entire living quarters of the house (including present unfinished attic space) to 70 degrees F. when the outside temperature is 0 degrees F., and wind velocity not in excess of 30 miles per hour, with not less than a 6-hour firing period.

ELECTRIC WIRING - Same as 6-room frame house.